

ABSTRACT

An apparatus for parallel monitoring of a plurality of chemical reactions, each chemical reaction occurring within a respective one of a plurality of wells. The apparatus includes a lighting device for illuminating the plurality of wells, the lighting device having an light emitting diode (LED) array, a camera device configured to obtain images of the plurality of wells and saving the images to an image storage location, the camera device having a charge couple device (CCD) capable of imaging the plurality of wells simultaneously, a viewing program for viewing one or more of the saved images, and an analyzing program for opening each saved image and geometrically registering each saved image in order to determine a specific value corresponding to each one of the chemical reactions at the time the image was obtained, the analyzing program saving the specific values to an analysis results storage location. A method of utilizing the apparatus is also disclosed.